

## NOTE ON HEMIHYALEA AND SOME SPECIES OF AMASTUS

(*Lepidoptera, Arctiidae*)

By HARRISON G. DYAR

The genera *Hemihyalea* and *Amastus* differ only in that in the former "vein 3 of fore wing arises at or near the angle of the cell," while in the latter it is distant from the angle. The species are not sharply marked by this character, as in some vein 3 is intermediate in position, so that doubt can arise. I think that *cornea* Herrich-Schäffer, under which Hampson wrongly sinks *mansueta* H. Edwards, *rhoda* and *daraba* Druce, will find a better place in *Amastus*. Also *ergana* Dognin, which Hampson places in *Hemihyalea*, together with *perergana* and *tenuimargo* of Dognin, described since Hampson's work. On the other hand, *proba* Schaus, placed by Hampson in *Elysius*, and *edaphus* Dyar, described by me in *Amastus*, clearly belong in *Hemihyalea*. The species of this genus separate as follows, taking Hampson's table as a basis (Cat. Lep. Phal., iii, 130, 1901).

Abdomen crimson or reddish.

Male antennæ strongly bipectinated.

Front of head white.

Fore wing purplish throughout . . . . . *tristis* Rothschild

Fore wing hyaline with moderate brown border *brunnescens* Rothschild

Front of head concolorous with thorax.

Fore wing distinctly hyaline, at least over disk, unbanded.

Thorax and margins of fore wing dark brown . *fusca* Rothschild

These parts pale brown . . . . . var. *columbiana* Rothschild

Fore wing subhyaline to opaque, generally showing markings.

Hind wing largely or entirely suffused with crimson.

Fore wing ocher-brown, the markings slight . *annario* Dyar

Fore wing ocher-brown, irrorate and with pale spots  
surrounded with blackish dots . *ochracea* Rothschild

Fore wing largely blackish; bands represented by pale  
spots on costa and margin or absent . *nimbipicta* Dyar

Hind wing crimson along inner area, seldom extending above  
median vein.

Abdomen with dorsal black patches . *edwardsii* Packard

Abdomen without dorsal black patches.

Disk of fore wing subhyaline.

Bands of fore wing more or less distinct.

Bands brown; termen brown as if burnt,  
but the color diffused inward *daraba* Druce

Bands blackish; termen brown, sharply  
dentately limited inwardly . *euornithia* Dyar  
Bands of fore wing obsolete.  
Light yellowish testaceous *testacea* Rothschild  
Dark tan brown.

Bands, if indicated, on costa only.  
*rhoda* Druce

Bands indicated on both costa and  
margin . var. *hidalgonis* Dyar

Disk of fore wing opaque . *mansueta* H. Edwards  
Hind wing without any crimson.

Wings yellowish with gray powdering . *labecula* Grote  
Wings hyaline whitish with blackish powdering.

*splendens* Barnes & McDunnough

Male antennæ very shortly bipectinated . . . . . *utica* Druce  
Abdomen without red tint.

Hind wing not yellow.

Fore wing hyaline straw-color.

Abdomen orange buff . . . . . *hyalina* Druce

Abdomen pale yellowish . . . . . *alba* Druce

Fore wing gray with darker bands having more or less distinct yellow  
spots on the veins.

Hind wing paler than fore wing, unmarked . *diminuta* Walker

Hind wing of the color of fore wing, veins dark *xanthosticta* Hampson

Fore wing uniformly blackish.

Hind wing pale, whitish . . . . . *melas* Dognin

Hind wing blackish . . . . . *hades* Druce

Hind wing yellow.

Apex of hind wing touched with fuscous . . . . . *proba* Schaus

Hind wing fuscous gray from costa over cell . . . . . *edaphus* Dyar

## **Hemihyalea tristis** Rothschild.

*Hemihyalea tristis* Rothschild, Ann. Mag. Nat. Hist., (8), iv, 213, 1909; Nov.  
Zool., xvii, pl. xii, fig. 17, 1910.

## **Hemihyalea brunnescens** Rothschild.

*Hemihyalea brunnescens* Rothschild, Ann. Mag. Nat. Hist., (8), iv, 213, 1909;  
Nov. Zool., xvii, pl. xii, fig. 25, 1910.

## **Hemihyalea fusca** Rothschild.

*Hemihyalea fusca* Rothschild, Ann. Mag. Nat. Hist., (8), iv, 214, 1909;  
Nov. Zool., xvii, pl. xii, fig. 24, 1910.

*Hemihyalea erganoides peruviana* Rothschild, Nov. Zool., xvi, 277, 1909.

*Hemihyalea fusca columbiana* Rothschild, Nov. Zool., xvii, 50, 1910.

Rothschild says (Nov. Zool., xvii, 54, 1910) that what he originally identified as *H. erganoides* proved to be not that species, but *Hemihyalea fusca columbiana*, differing from *fusca fusca* in being pale brown. Therefore his *H. erganoides peruviana*, which differed from *erganoides* Rothschild (not Dognin) in being dark brown, must be the same as *fusca fusca*.

### **Hemihyalea annario**, new species.

Head, thorax, and fore wing brown, the latter slightly irrorate, sub-translucent over the cell and with a dark mark on the discal cross vein; inner margin darker, especially along its edge; in one specimen, traces of dark subterminal dots between the veins. Pectus brown; femora red above; abdomen crimson dorsally except the anal segment, which is partly shaded only. Hind wing subhyaline rose-color except the costal edge, which is dark testaceous. Expanse, 64 mm.

Cotypes, two females, No. 18906, U. S. Nat. Mus.; Tuis, Costa Rica, June, 1909 (W. Schaus).

One of the specimens is labeled "*H. fuscescens* Rothschild," in Sir George Hampson's writing, but it is not what I identify as such. It is close to *ochracea* Roths., and may be an immaculate form of that species, though it seems darker brown and broader winged.

### **Hemihyalea ochracea** Rothschild.

*Hemihyalea ochracea* Rothschild, Ann. Mag. Nat. Hist., (8), iv, 213, 1909.

### **Hemihyalea nimbipicta** Dyar.

This will be more fully described in my fifth paper on Mexican lepidoptera, to appear in the Proceedings of the U. S. National Museum. The specimens I make the types are very dark on fore wing, but with the dark border of hind wing much reduced. Lighter specimens show a brown ground crossed by black macular bands, more or less replaced on costa and inner margin by light ocher patches. The hind wings have a discal spot and the apices rather broadly dark.

### **Hemihyalea edwardsii** Packard.

The well-known Californian species.

### **Hemihyalea daraba** Druce.

*Phæoptera daraba* Druce, Ann. Mag. Nat. Hist., (6), xiii, 173, 1894.

Treated by Hampson as a subspecies of *H. cornea* Herrich-Schäffer (Cat. Lep. Phal., iii, 131, 1901) but quite distinct as Rothschild has shown (Nov. Zool., xvi, 277, 1909). The discal area of fore wing is generally more or less hyaline, the bands quite distinct in good specimens. The dark brown margins are characteristic, the wing looking as if burnt around the edge.

### **Hemihyalea euornithia** Dyar.

To be more fully described in my fifth Mexican paper. It is distinguished from *daraba* by the brown, dentate, terminal border and the much darker bands.

### **Hemihyalea testacea** Rothschild.

*Hemihyalea testacea* Rothschild, Ann. Mag. Nat. Hist., (8), iv, 213, 1909.

*Hemihyalea argillacea* Rothschild, Nov. Zool., xvi, 277, 1910.

A very distinct and uniform species, which I have only from Mexico. *H. argillacea* was described from Gold Hill, Oregon; but Rothschild cites also specimens from Guatemala. From the description, I can make nothing of *argillacea* but rubbed *testacea* and have so tentatively referred it.

### **Hemihyalea rhoda** Druce.

*Phagoptera rhoda* Druce, Ann. Mag. Nat. Hist., (6), xiii, 173, 1894.

*Hemihyalea fuscescens* Rothschild, Nov. Zool., xvi, 277, 1909.

A brown species, the fore wing strongly subhyaline and irrorate, the bands practically obsolete. The subspecies *hidalgonis* will be described in my fifth Mexican paper.

### **Hemihyalea mansueta** H. Edwards.

*Halesidota mansueta* H. Edwards, Pap., iv, 75, 1884.

*Hemihyalea battyi* Rothschild, Nov. Zool., xvi, 278, 1909.

A rather variable species. Fore wing generally opaquish dark ocher, the outer margin narrowly burnt brown. When bands appear, they consist of macular ocher yellow ones, surrounded by blackish dots. This is about the commonest Mexican species and extends southward at least as far as Colombia.

### **Hemihyalea labecula** Grote.

The well-known Coloradan species.

**Hemihyalea splendens** Barnes & McDunnough.

*Hemihyalea splendens* Barnes & McDunnough, Journ. N. Y. Ent. Soc., xviii, 149, 1910.

A handsome species coming from Arizona.

**Hemihyalea proba** Schaus.

*Phagoptera proba* Schaus, Proc. Zool. Soc. Lond., 1892, 281.

*Elysus proba* Hampson, Cat. Lep. Phal., iii, 111, 1901.

**Hemihyalea edaphus** Dyar.

*Amastus edaphus* Dyar, Proc. U. S. Nat. Mus., xlv, 286, 1913.

The species of *Amastus* with the fore wing completely hyaline except for a narrow border of scales on the margin separate as follows:

Pectus and venter of abdomen ocher.

Neck with crimson ring; patagia and tegulæ edged with buff . *hyalina* Dognin  
Neck not crimson dorsally; thorax unicolorous.

Thorax and wing margins ocher . . . *cornea* Herrich-Schäffer

Thorax and wing margins brown . . . *erganoides* Dognin

Pectus and venter of abdomen reddish.

Tip of abdomen, thorax, and border of wings brown-black . *tenuimargo* Dognin

Abdomen all red dorsally; thorax and margin of wings brown . *diaphenes* Dyar

**Amastus hyalina** Dognin.

*Phagoptera hyalina* Dognin, Le Nat., (2), iii, 14, 1889.

*Amastus hyalina* Hampson, Cat. Lep. Phal., iii, 143, 1901.

*Amastus rubridorsata* Dognin, Het. Nouv. l'Am. du Sud., vi, 5, 1912.

The male has rose-red hairs on the dorsum of abdomen; those of the female are pale brown.

**Amastus erganoides** Dognin.

*Hemihyalea erganoides* Dognin, Ann. Ent. Soc. Belg., xlv, 32, 1902.

*Amastus hyalina orientalis* Rothschild, Nov. Zool., xvi, 279, 1909.

The male and female differ in the color of the abdomen as above.

**Amastus cornea** Herrich-Schäffer.

*Phagoptera cornea* Herrich-Schäffer, Ausser. Schm., ff. 61, 62, 1853.

Herrich-Schäffer figures male and female, differing in the color of the abdomen, as in the preceding two species. He shows a pale subterminal band in the male, which I do not find in my specimens.

**Amastus tenuimargo** Dognin.

*Hemihyalea tenuimargo* Dognin, Het. Nouv. l'Am. du Sud., vi, 5, 1912.

**Amastus diaphenes**, new species.

Head and thorax anteriorly brown; wings hyaline, margins narrowly brown; back of thorax and abdomen dorsally rose-crimson; orbits, base of palpi, pectus, and venter of thorax of the same red color; venter of abdomen brown. Expanse, 61 mm.

Type, male, No. 18907, U. S. Nat. Mus.; Colombia (Schaus collection, purchased from Staudinger).

**TWO NORTH AMERICAN SYRPHIDÆ**

By FREDERICK KNAB

**Ocyptamus jactator** (Loew).

*Syrphus jactator* Loew, Wien. Ent. Monatschr., vol. 5, p. 40 (1861); Berlin. Ent. Zeitschr., vol. 9, p. 156 (Century VI, No. 46) (1865).

The National Museum possesses a single specimen of this species, taken at Biscayne Bay, Florida, by Mrs. A. T. Slosson. Like Loew's type, it is a male and it agrees with his description in every detail except one. He indicates a broad yellow fascia at the base of the fourth abdominal segment, as well as of the second and third segments. The specimen before me has the fourth segment ferruginous, with a narrow median blackish stripe. The difference, however, is merely due to the condition of the specimen, decomposition of the body contents having destroyed the pigment in that segment. With close scrutiny the location of the yellow band may still be made out. The bright yellow scutellum and abdominal fasciæ suggest *Syrphus*, but the other characters are all typical of *Ocyptamus*. The wing is smoky for the most part, only the second basal cell and the region behind it being clear; there is a yellowish shade within the clouded portion, anteriorly beyond the middle. Loew described the species from Cuba and its occurrence in Florida emphasizes the existence of a large Antillean element in the fauna of southern Florida.

**Syrphus diversifasciatus**, new species.

Male: Face prominent, yellow, descending almost perpendicularly, a diffuse ferruginous median shade, heaviest on the tubercle and about the mouth, clothed with white pile except on the shining tubercle; cheeks black; frons ferruginous, broadly blackish along the eyes, clothed with coarse black hair which extends well down at the sides of the antennæ; vertex black; occiput with whitish pile. Antennæ ferruginous beneath,